

Amendments to the Claims

41. **(Currently Amended)** A method for use by a device operating on a network over which multiple devices belonging to a defined set communicate with each other by transmitting and receiving messages, the method comprising:

transmitting the messages at a frequency that hops from one frequency to another over time in accordance with a predictable pseudo-random hopping sequence that determines each frequency in the hopping sequence from a particular identifier associated with one of the devices and a universal time parameter;

characterized in that:

each frequency in the hopping sequence is determined from a known function of the particular identifier, the universal time parameter, and a seed that is changed over time and that further randomizes ~~changes~~ the hopping sequence from the predictable pseudo-random hopping sequence that which would otherwise be determined from the particular identifier and the universal time parameter alone, whereby a pattern of changing transmit frequencies that is detected in messages received by a device outside the defined set is impeded from being associated with the particular identifier associated with one of the devices within the set.

Claim 42 (Cancelled)

43. **(Currently Amended)** The method of claim 41 42-wherein the seed is changed periodically.

44. **(Currently Amended)** The method of claim 41 42 wherein the seed is changed aperiodically.

45. **(Currently Amended)** The method of claim 41 42 wherein the seed is changed when a new session begins on one of the devices in the set.

46. **(Previously Presented)** The method of claim 41 wherein the known function is a one-way function.

47. **(Previously Presented)** The method of claim 41 wherein the seed is at least a first random or pseudo-random number.

48. **(Previously Presented)** The method of claim 45 wherein the seed is at least a first random or pseudo-random number that determines in part the sequence of frequencies in the hopping sequence used for transmitting messages within a current session.

49. **(Previously Presented)** The method of claim 47 wherein the seed is a combination of the first random or pseudo-random number and at least a second random or pseudo-random number that determined in part the sequence of frequencies in the hopping sequence used for transmitting messages within at least one previous session.

50. **(Previously Presented)** The method of claim 47 wherein the random or pseudo-random number is received in an encrypted form by the device from one of the other devices in the set, and the encrypted random or pseudo-random number is decrypted before being used as the seed.

51. **(Currently Amended)** A method for use in a Bluetooth-enabled device operating on a wireless network over which multiple Bluetooth-enabled devices within a defined set communicate with each other by transmitting and receiving messages to and from a master device within the set, the method comprising:

transmitting the messages at a frequency that hops from one frequency to another over time in accordance with a predictable pseudo-random hopping sequence that determines each frequency within the hopping sequence from a

Bluetooth address (BD_ADDR) associated with the master device and a universal time parameter;

characterized in that:

each frequency in the hopping sequence is determined from a known function of the master device's BD_ADDR, the universal time parameter, and a seed that is changed over time and that further randomizes ~~changes~~ the hopping sequence from the predictable pseudo-random hopping sequence that which would otherwise be determined from the master device's BD_ADDR and the universal time parameter alone, whereby a pattern of changing transmit frequencies that is detected in messages received by a device outside the defined set is impeded from being associated with the master device's BD_ADDR.

Claim 52 (Cancelled)

53. **(Currently Amended)** The method of claim 51 ~~52~~ wherein the seed is changed periodically.

54. **(Currently Amended)** The method of claim 51 ~~52~~ wherein the seed is changed aperiodically.

55. **(Currently Amended)** The method of claim 51 ~~52~~ wherein the seed is changed when a new session begins on one of the devices in the set.

56. **(Previously Presented)** The method of claim 51 wherein the known function is a one-way function.

57. **(Previously Presented)** The method of claim 51 wherein the seed is at least a first random or pseudo-random number.

58. **(Previously Presented)** The method of claim 55 wherein the seed is at least a first random or pseudo-random number that determines in part the sequence of frequencies in the hopping sequence used for transmitting messages within a current session.

59. **(Previously Presented)** The method of claim 57 wherein the seed is a combination of the first random or pseudo-random number and at least a second random or pseudo-random number that determined in part the sequence of frequencies in the hopping sequence used for transmitting messages within at least one previous session.

60. **(Previously Presented)** The method of claim 57 wherein the random or pseudo-random number is received in an encrypted form by the device from one of the other devices in the set, and the encrypted random or pseudo-random number is decrypted before being used as the seed.

61. **(Currently Amended)** Apparatus for use in a device operating on a network over which multiple devices belonging to a defined set communicate with each other by transmitting and receiving messages, the apparatus comprising:

means for transmitting the messages at a frequency that hops from one frequency to another over time in accordance with a predictable pseudo-random hopping sequence; and

means for determining each frequency in the hopping sequence from a known function of a particular identifier associated with one of the devices in the set, a universal time parameter, and a seed that is changed over time and that further randomizes the hopping sequence from the predictable pseudo-random hopping sequence that would otherwise be determined from the particular identifier and the universal time parameter alone, whereby a pattern of changing transmit frequencies that is detected in messages received by a device outside the defined set is impeded from being associated with the particular identifier associated with one of the devices within the set.

Claim 62 (Cancelled)

63. **(Currently Amended)** The apparatus of claim 61 62 wherein the seed is changed periodically.

64. **(Currently Amended)** The apparatus of claim 61 62 wherein the seed is changed aperiodically.

65. **(Currently Amended)** The apparatus of claim 61 62 wherein the seed is changed when a new session begins on one of the devices in the set.

66. **(Previously Presented)** The apparatus of claim of claim 61 wherein the known function is a one-way function.

67. **(Previously Presented)** The apparatus of claim 61 wherein the seed is at least a first random or pseudo-random number.

68. **(Previously Presented)** The apparatus of claim 65 wherein the seed is at least a first random or pseudo-random number that determines in part the sequence of frequencies in the hopping sequence used for transmitting messages within a current session.

69. **(Previously Presented)** The apparatus of claim 67 wherein the seed is a combination of the first random or pseudo-random number and at least a second random or pseudo-random number that determined in part the sequence of frequencies in the hopping sequence used for transmitting messages within at least one previous session.

70. **(Previously Presented)** The apparatus of claim 67 wherein the random or pseudo-random number is received in an encrypted form by the device from one of the other devices in the set, and the processor decrypts the encrypted random or pseudo-random number.

71. **(Currently Amended)** Apparatus for use in a Bluetooth-enabled device operating on a wireless network over which multiple Bluetooth-enabled devices within a defined set communicate with each other by transmitting and receiving messages to and from a master device within the set, the apparatus comprising:

means for transmitting the messages at a frequency that is hops from one frequency to another over time in accordance with a predicable pseudo-random hopping sequence; and

means for determining each frequency in the hopping sequence from a known function of a Bluetooth address (BD_ADDR) associated with the master device, a universal time parameter, and a seed that is changed over time and that further randomizes the hopping sequence from the predictable pseudo-random sequence that would otherwise be determined from the master device's BD_ADDR and the universal time parameter alone, whereby a pattern of changing transmit frequencies that is detected in messages received by device outside the defined set is impeded from being associated with the master device's BD_ADDR.

Claim 72 (Cancelled)

73. **(Currently Amended)** The apparatus of claim ~~71~~ ~~72~~ wherein the seed is changed periodically.

74. **(Currently Amended)** The apparatus of claim ~~71~~ ~~72~~ wherein the seed is changed aperiodically.

75. **(Currently Amended)** The apparatus of claim ~~71~~ ~~72~~ wherein the seed is changed when a new session begins on one of the devices in the set.

76. **(Previously Presented)** The apparatus of claim 71 wherein the known function is a one-way function.

77. **(Previously Presented)** The apparatus of claim 71 wherein the seed is at least a first random or pseudo-random number.

78. **(Previously Presented)** The apparatus of claim 75 wherein the seed is at least a first random or pseudo-random number that determines in part the sequence of frequencies in the hopping sequence used for transmitting messages within in a current session.

79. **(Previously Presented)** The apparatus of claim 77 wherein the seed is a combination of the first random or pseudo-random number and at least a second random or pseudo-random number that determined in part the sequence of frequencies in the hopping sequence used for transmitting messages within at least one previous session.

80. **(Previously Presented)** The apparatus of claim 77 wherein the random or pseudo-random number is received in an encrypted form by the device from one of the other devices in the set, and the processor decrypts the encrypted random or pseudo-random number.